

Lesson 12: Conversación numérica

Standards Alignments

Addressing 4.NBT.A.1, 4.NBT.B, 4.NF.B, 4.NF.B.4

Teacher-facing Learning Goals

- Apply understanding of addition, subtraction, multiplication, and division to create a Number Talk activity.

Student-facing Learning Goals

- Creemos nuestras propias actividades tipo “Conversación numérica”.

Lesson Purpose

The purpose of this lesson is for students to use patterns, structure, and understanding of properties of operations to design a series of expressions for a Number Talk activity.

This lesson provides an opportunity to listen to ways in which students make use of structure and repeated reasoning to design a Number Talk. In the warm-up, students are given a typical Number Talk with four expressions and discuss how the expressions are related. In the first activity, students practice anticipating the different ways someone might reason about addition and subtraction for a group of expressions and create expressions that would fit with the given string of expressions. In the final two activities, students are given incomplete sets with a decreasing number of expressions and asked to write new expressions to create a Number Talk activity. This lesson can take 1–2 days if students facilitate their creations with other groups.

Access for:

Students with Disabilities

- Action and Expression (Activity 1)

English Learners

- MLR7 (Activity 2)

Instructional Routines

Number Talk (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	20 min
Activity 2	15 min

Teacher Reflection Question

Think about two questions you asked students today: a question that yielded insight into student thinking and one that you wish you had framed differently. How do the questions

Activity 3	30 min	compare? How would you ask the latter differently to elicit the desired reasoning or insight?
Lesson Synthesis	10 min	
Cool-down	5 min	

Cool-down (to be completed at the end of the lesson)

 5 min

Reflexiona

Standards Alignments

Addressing 4.NBT.B, 4.NF.B

Student-facing Task Statement

Como matemáticos, con frecuencia usamos patrones para ayudarnos a razonar sobre nuevos problemas. Observar algo que se repite una y otra vez también nos puede ayudar a resolver problemas.

Describe un momento de la lección de hoy, o un momento reciente, en el que hayas observado un patrón o algo que se repite y lo hayas usado como ayuda para pensar en un problema. ¿Cómo te ayudó el patrón o la repetición?

Student Responses

Sample response: Recently, I noticed that one way to find the product of a whole number and a fraction like $\frac{1}{8}$ is to divide the whole number by the denominator of the fraction. When I multiply 16 by $\frac{1}{8}$, the result is the same as the result of dividing 16 by 8. I have used this observation to check my answers to multiplication problems like this.